

ATTORNEY DOCKET NO. 14014.0346U1
PATENTIN THE CLAIMS

Please cancel claims 11, 22, 24 and 28 without prejudice

Please amend claims 1, 4, 12, 15, 23, 27, 31-34 and 36 as follows:

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1. (currently amended) ~~A~~ An isolated population of insulin-producing cells made by a process comprising contacting, for at least twenty-four hours, non-insulin producing cells with a growth factor selected from the group consisting of GLP-1, growth factors having amino acid sequences substantially homologous to GLP-1, and fragments thereof.
2. (original) The population of claim 1, wherein the non-insulin producing cells are contacted with the growth factor *in vitro*.
3. (original) The population of claim 1, wherein the non-insulin producing cells are contacted with the growth factor *in vivo*.
4. (currently amended) The population of claim 1, wherein the non-insulin producing cells comprise ~~non-islet cells~~ cells that are not pancreatic beta cells.
5. (original) The population of claim 1, wherein the non-insulin producing cells comprise pancreatic cells.
6. (original) The population of claim 1, wherein the non-insulin producing cells comprise pancreatic acinar cells.
7. (original) The population of claim 1, wherein the non-insulin producing cells comprise stem cells.
8. (original) The population of claim 1, wherein the non-insulin producing cells comprise pancreatic stem cells.

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CONT

9. (original) The population of claim 1, wherein the non-insulin producing cells are mammalian cells.
10. (original) The population of claim 9, wherein the mammalian cells are human cells.
11. (canceled)
12. (currently amended) ~~A~~ An isolated population of insulin-producing cells made by a process comprising contacting, for at least twenty-four hours, noninsulin-producing cells with a growth factor selected from the group consisting of Exendin-4, growth factors having amino acid sequences substantially homologous to Exendin-4, or fragments thereof.
13. (original) The population of claim 12, wherein the non-insulin producing cells are contacted with the growth factor *in vitro*.
14. (original) The population of claim 12, wherein the non-insulin producing cells are contacted with the growth factor *in vivo*.
15. (currently amended) The population of claim 12, wherein the non-insulin producing cells comprise non-islet cells cells that are not pancreatic beta cells.
16. (original) The population of claim 12, wherein the non-insulin producing cells comprise pancreatic cells.
17. (original) The population of claim 12, wherein the non-insulin producing cells comprise pancreatic acinar cells.
18. (original) The population of claim 12, wherein the non-insulin producing cells comprise stem cells.
19. (original) The population of claim 12, wherein the non-insulin producing cells comprise pancreatic stem cells.

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20. (original) The population of claim 12, wherein the non-insulin producing cells are mammalian cells.

21. (original) The population of claim 20, wherein the mammalian cells are human cells.

22. (canceled)

23. (currently amended) A method of differentiating non-insulin producing cells into insulin producing cells, comprising contacting, for at least twenty-four hours, the non-insulin producing cells with a growth factor selected from the group consisting of GLP-1, growth factors having amino acid sequences substantially homologous to GLP-1, and fragments thereof.

24. (canceled)

25. (original) The method of claim 23, wherein the non-insulin producing cells are contacted with the growth factor *in vitro*.

26. (original) The method of claim 23, wherein the non-insulin producing cells are contacted with the growth factor *in vivo*.

27. (currently amended) A method of differentiating non-insulin producing cells into insulin producing cells, comprising contacting, for at least twenty-four hours, the non-insulin producing cells with a growth factor selected from the group consisting of Exendin-4, growth factors having amino acid sequences substantially homologous to Exendin-4, or fragments thereof.

28. (canceled)

29. (original) The method of claim 27, wherein the non-insulin producing cells are contacted with the growth factor *in vitro*.

30. (original) The method of claim 27, wherein the non-insulin producing cells are contacted with the growth factor *in vivo*.

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31. (currently amended) A method of enriching a population of cells for insulin-producing cells, comprising contacting, for at least twenty-four hours, the population of cells with a growth factor GLP-1 or exendin-4, growth factors having amino acid sequences substantially homologous to GLP-1 or exendin-4, or fragments thereof, that differentiate[s] non-insulin-producing cells into insulin-producing cells.
32. (currently amended) A method of promoting pancreatic amylase producing cells to produce both insulin and amylase, comprising contacting, for at least twenty-four hours, the pancreatic amylase producing cells with a growth factor selected from the group consisting of GLP-1, growth factors having amino acid sequences substantially homologous to GLP-1, and fragments thereof.
33. (currently amended) A method of promoting pancreatic amylase producing cells to produce both insulin and amylase, comprising contacting, for at least twenty-four hours, the pancreatic amylase producing cells with a growth factor selected from the group consisting of Exendin-4, growth factors having amino acid sequences substantially homologous to Exendin-4, and fragments thereof.
34. (currently amended) A method of treating diabetes inducing insulin secretion in a subject diagnosed with Type I diabetes lacking insulin-producing cells, comprising administering to the subject a growth factor selected from the group consisting of GLP-1, growth factors having amino acid sequences substantially homologous to GLP-1, and fragments thereof by continuous infusion for at least twenty-four hours.
35. (original) The method of claims 34, wherein the growth factor differentiates non-insulin producing cells into insulin producing cells.
36. (currently amended) A method of treating diabetes inducing insulin secretion in a subject diagnosed with Type I diabetes, comprising administering to the subject a growth factor selected from the group consisting of Exendin-4, growth factors having amino acid sequences substantially homologous to Exendin-4, and fragments thereof, wherein the exendin-4 contacts non-insulin-producing cells for at least twenty-four hours, and wherein the non-insulin-producing cells are differentiated into insulin-producing cells.

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37. (original) The method of claim 36, wherein the growth factor is administered by bolus at least once.
38. (original) The method of claims 36, wherein the growth factor differentiates non-insulin producing cells into insulin producing cells.
39. (withdrawn)
40. (withdrawn)
41. (withdrawn)
42. (withdrawn)
43. (withdrawn)
44. (withdrawn)
45. (withdrawn)
46. (withdrawn)
47. (withdrawn)
48. (withdrawn)
49. (withdrawn)
50. (withdrawn)
51. (withdrawn)
52. (withdrawn)